

Amendments to the Specification

Please replace paragraph [0010] with the following amended paragraph:

[0010] Further, at times it would be convenient for a microscopist to manipulate the microscope stage without the restrictions imposed ~~be~~ by a stage control mechanism. For example, approximately 90% of pathologists use a “hand-drive” technique, i.e., rapid movement of the specimen by directly moving the slide mount without the use of the stage drive mechanism. Current systems are difficult for an operator to push or pull on the stage / slide mount, without potentially causing damage to the drive mechanisms. Furthermore, most pathologists would prefer to remove the stage drive mechanism completely. Thus, there has been a ~~long-felt~~ long-felt need for an interchangeable or easily removable microscope stage drive assembly.

Please replace paragraph [0015] with the following amended paragraph:

[0015] The nature and mode of operation of the present invention will now be more fully described in the following detailed description of the invention taken with the accompanying drawing figures, in which:

Figure 1 is a perspective view of a typical compound microscope configured for use with the interchangeable microscope stage drive assembly of the present invention;

Figure 2 is a perspective view of the interchangeable microscope stage drive assembly of the present invention;

Figure 3 is a perspective view of the bottom of the interchangeable microscope stage drive assembly of the present invention, having the drive mechanism operatively arranged for right-handed use;

Figure 4 is a perspective view of the bottom of the interchangeable microscope stage drive assembly of the present invention, having the drive mechanism operatively arranged for left-handed use;

Figure 5 is a perspective view of the bottom of the interchangeable microscope stage drive assembly of the present invention, depicting a retention method of the drive mechanism in the right-handed operative arrangement;

Figure 6 is a perspective view of the bottom of the interchangeable microscope stage drive assembly of the present invention, depicting the removal of the drive mechanism from an operative arrangement;

Figure 7 is a perspective view of the bottom of the interchangeable microscope stage drive assembly of the present invention, depicting a retention method of the drive mechanism in the left-handed operative arrangement;

Figure 7A is a perspective view of the bottom of the interchangeable microscope stage drive assembly of the present invention, depicting an alternative retention method of the drive mechanism;

Figure 8 is a top view of the interchangeable microscope stage drive assembly of the present invention;

Figure 9 is a cross-sectional view of the interchangeable microscope stage drive assembly of the present invention, taken generally along line 9-9 of Figure 8;

Figure 10 is a cross-sectional view of the interchangeable microscope stage drive assembly of the present invention, taken generally along line 10-10 of Figure 8;

Figure 11 is a magnified view of the encircled region of the invention shown in Figure 10;

Figure 12 is a cross-sectional view of the interchangeable microscope stage drive assembly of the present invention, taken generally along line 10-10 of Figure 8, depicting degrees of freedom of movement of the stage drive mechanism;

Figure 13 is a magnified view of the encircled region of the invention shown in Figure 12;

Figure 14 is a magnified view of the interchangeable microscope stage drive assembly of the present invention, similar to Figure 13, depicting a second embodiment of the plunger head and drive pulley; and,

Figure 15 is a magnified view of the interchangeable microscope stage drive assembly of the present invention, similar to Figure 13, depicting a third embodiment of the plunger head and drive pulley.

Please replace paragraph [0016] with the following amended paragraph:

[0016] It should be appreciated at the outset that while the present invention relates to an “Interchangeable Microscope Stage Drive Assembly”, the Assignees of the present Application for Patent have developed certain other improvements to microscopes described in ~~United States Patent Applications~~ U.S. Patent Application Serial No. 10/811,346, entitled “Releasable / Interchangeable Fine Focus Knob for a Microscope”, U.S. Patent Application Serial No. 10/811,344, entitled “Ergonomically Arranged Object Adjustment Controls”, U.S. Patent Application Serial No. 10/810,979, entitled “Shielded-Ergonomic Microscope Stages”, U.S. Patent Application Serial No. 10/810,980, entitled “Lamp Assembly for a Microscope” and U.S. Patent Application Serial No. 10/811,348, entitled “Means for Transporting a Microscope”, which applications are filed concurrently herewith by the Assignees of the present Application for Patent, which Applications are incorporated herewith by reference in their entireties.

Please replace paragraph [0024] with the following amended paragraph:

[0024] Figure 6 illustrates the drive mechanism after removal from the stage. Set screw 42 is shown as still attached to the wrench 28. Further depicted in this figure are the slide mount driving member 32 and tensioning spring 59, both being attached to screw 61, screw 61 being affixed in slide mount ~~guide~~ glide 30. Rotation of drive pulley 56 (shown on Figure 9) imparts a driving force on drive member 32. The force is transmitted and dampened by spring 59, and effects movement of guide 30, by means of the attachment between drive member 32 to ~~guide~~ glide 30 by screw 61. Movement of ~~guide~~ glide 30 further effects movement of slide mount 16, wherein the translational movement changes the location within slide 17 (shown in Figure 1) being observed. Additionally, this embodiment depicts the configuration of the stage mechanism for use by the aforementioned "hand-drive" technique.

Please replace paragraph [0025] with the following amended paragraph:

[0025] Figure 7 is a perspective view of the bottom of the interchangeable microscope stage drive assembly of the present invention, depicting the arrangement for left-handed use of the present invention. In this view, drive mechanism 27 has been reinstalled in mounting hole 26 of stage 14. In this drawing view, Allen wrench 28 is shown tightening set screw 42 for retention of the mechanism. Alternatively, drive mechanism 27 can be detachably secured to the stage by spring-loaded ball bearing 66 as shown in Figure 7A.

Please replace paragraph [0028] with the following amended paragraph:

[0028] Figure 10 is a cross-sectional view of the interchangeable microscope stage drive assembly of the present invention, taken generally along line 10-10 of Figure 8, further depicting the arrangement of stage positioning knobs 18 and 20, and drive shafts 22 and 48, with set screw 42. In this view, plunger head 50 has no engagement force applied to the plunger head, ~~therefore~~ therefore plunger head 50 and drive pulley 56 are not matingly contacted, further, no driving force can be applied to drive member 32 in this configuration.